REMARKS

The applicant has carefully reviewed and considered the Office Action of 29 November 2006. In response, the applicant requests reconsideration of the patentability of the claims in view of the following comments.

THE REJECTION OF CLAIMS 1, 3, 5, 9-13, 15, 38-40 AND 42-46 UNDER 35 USC §103(a) IN VIEW OF U.S. PATENT 6,497,950 TO HAILE ET AL. WHEN CONSIDERED IN COMBINATION WITH U.S. PATENT 5,660,908 TO KELMAN ET AL.

The primary reference to Haile et al. at column 1, lines 41-44 explicitly states, "unmodified poly(ethyleneterephthalate) (PET) is very high melting ... and is therefore unsuitable for use in bonding nonwoven fiber and film laminates for use in the automotive industry." The Haile et al. reference further notes that previous polyesters and binder fibers "... have not proven effective to repeatedly withstand the temperatures of up to about 110° C without losing bond integrity." See column 2, lines 21-24.

In order to address this shortcoming of unmodified PET, the Haile et al. reference explicitly teaches "... providing polyesters which are formed from the reaction products of at least about 50 mole % of a glycol having either four or six carbon atoms and by controlling the amounts of diethylene glycol and ethylene glycol to less than about 20 mole % of the glycol component." See column 2, lines 27-33. When the modified polyesters of the Haile et al. patent are formed into bonded structures, they typically possess "elastic bonds which are less susceptible

page 35-42 are US patent & are recycled

to cracking when subjected to repeated flexing" and "are capable of maintaining the shape and appearance of the bonded product over time." See column 2, line 66 to column 3, line 8. In effect, the Haile et al. patent teaches that the chemically modified polyesters of the invention provide desired shape retention and strength characteristics for use in automotive products such as headliners. See, for example, column 10, lines 54-58, column 12, lines 32-45, column 13; lines 58-64 and example 3 at column 16 and 17.

The secondary reference to Kelman et al. specifically relates to and teaches a recyclable automotive headliner consisting of 100% polyethylene terephthalate (PET) material. Like the Haile et al. patent, the Kelman et al. patent explicitly notes that 100% PET material is not suited for use as a headliner as it does not have the desired strength properties. Note, for example, column 1, lines 22-28. The Kelman et al. patent then teaches that the desired "additional stiffness and shape-retention properties" may be obtained by providing a mechanical modification; that is, a scrim layer 26 that is bonded to the back side of the bat and spans the corrugations or reversed ribs 18 (see column 2, line 54).

Summarizing, both the primary reference to Haile et al. and the secondary reference to Kelman et al. recognize the shortcomings of utilizing PET material in automotive headliners. Significantly, while the Haile et al. patent explicitly teaches chemically modifying the polyesters to provide the desired characteristics, the Kelman et al. patent explicitly teaches mechanically modifying materials with a scrim to provide the desired characteristics. These are two totally different

approaches to solve the same problem and neither of the references suggests that the two approaches could be combined to achieve a desired result.

In formulating this rejection, the Examiner acknowledges on the record that the Haile et al. patent "discloses that the headliner material is capable of maintaining the shape and appearance of the product over time". The Examiner then notes that:

> "Kelman clearly discloses that even when a headliner possesses stiffness and shape-retention properties, additional stiffness and shape-retention properties are desired. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the headliner material of Haile in the design disclosed by Kelman, because the headliner would advantageously possess additional stiffness and shape-retention properties."

On what basis does the Examiner assume that additional stiffness and shape-retention properties are advantageous in a headliner application? In point of fact, additional stiffness and shape-retention properties are not.

More specifically, the Examiner's attention is directed to U.S. Patent 4,840,832 to Weinle et al. (note Exhibit A to this document and incorporated in the Appendix to this Request for Reconsideration). As illustrated in Figure 3 of the Weinle et al. patent and noted at column 1, lines 43-50, during installation, headliners are subjected to significant bending and flexing. Specifically, the

headliner must be bent or folded to pass through the window opening before being installed. In this case the additional stiffness and shape-retention properties that the Examiner suggests are an advantage are in fact a detriment. In point of fact, the Haile et al. patent teaches chemically modifying polyesters to provide the desired strength and shape-retention properties for a headliner. There simply is no motivation whatsoever for one skilled in the art to add additional stiffness and shape-retention properties to the headliner as taught in the Kelman et al. reference and suggested by the combination of art proposed by the Examiner. Since a headliner must maintain some flexibility to allow efficient and effective installation, the proposed combination of references made by the Examiner is in fact contra-indicated.

Based upon these comments it is very clear that claim 1 patentably distinguishes over this art and should be formally allowed. Claims 3, 5, 9-13 and 15 which depend from claim 1 and are rejected on the same grounds are equally allowable for the same reasons.

Independent claim 38 also patentably distinguishes over the prior art for the same reasons. The primary reference to Haile et al. and the secondary reference to Kelman et al. disclose two different ways to obtain the desired strength and shape-retention properties in a headliner. U.S. Patent 4,840,832 to Weinle et al. explicitly teaches that while strength and shape-retention properties are desired in a headliner, the headliner must also still be able to be folded, bended and flexed during installation and that too much strength and shape-retention in a headliner is

in fact detrimental and not desirable. Thus, the present rejection must fail under MPEP §2143.01 and should be withdrawn. Accordingly, independent claim 38 and claims 39-40 and 42-46 should be allowed.

THE REJECTION OF CLAIMS 4 AND 8 UNDER 35 USC §103(a) BASED UPON THE HAILE ET AL. AND KELMAN ET AL. REFERENCES WHEN CONSIDERED IN FURTHER COMBINATION WITH U.S. PATENT 5,892,187 TO PATRICK.

The secondary reference to Patrick is cited for its teaching that it is known in the art to vary the distance between ribs and the width of ribs based on the desired sound or noise to be attenuated. The Patrick reference, however, fails in any way to provide motivation for combining the primary reference to Haile et al. with the Kelman et al. patent. Thus, the Patrick reference fails to address the shortcoming noted above and claims 4 and 8 should therefore be allowed.

THE REJECTION OF CLAIMS 1, 3, 5, 9-13, 15, 38-440 AND 42-46 UNDER 35 USC §103(a) BASED UPON THE HAILE ET AL. PATENT AND THE KELMAN ET AL. PATENT WHEN CONSIDERED IN FURTHER COMBINATION WITH U.S. PATENT 5,399,4422 TO DIJKEMA ET AL.

As noted above, the primary reference to Haile et al. teaches providing a headliner with desired strength and shape-retention characteristics by chemically modifying the polyester used in those headliners. In contrast, the secondary reference to Kelman et al. teaches providing a headliner with desired strength and shape-retention properties by providing a reinforcing scrim. Thus, the Haile et al. patent teaches a chemical solution to the problem while the Kelman et al. patent teaches a mechanical solution to the problem. Neither the Haile et al. nor the

Kelman et al. reference teach the possibility of reaching a combined chemical and mechanical solution.

In addition, it would not be obvious to one skilled in the art to combine the Haile et al. and Kelman et al. references to provide a headliner with additional stiffness and shape retention properties as one skilled in the art would not seek additional stiffness and shape-retention properties as suggested by the Examiner. Specifically, as noted in U.S. Patent 4,840,832 to Weinle et al., a headliner must be flexible and capable of bending and folding during the installation process. Thus, additional stiffness is actually a detriment and is not a desirable modification. Thus, there is no motivation to combine the Haile et al. and Kelman et al. reference as suggested by the Examiner.

The secondary reference to Dijkema et al. fails to provide any teaching that addresses this shortcoming of the rejection. Accordingly, the rejection must fail and claims 1, 3, 5, 9-13, 15, 38-40 and 42-46 patentably distinguish over this art and should be formally allowed.

REJECTION OF CLAIMS 4 AND 8 UNDER 35 USC §103(a) BASED UPON THE HAILE ET AL., KELMAN ET AL., DJIKIMA ET AL. AND PATRICK REFERENCES.

As noted above, there is no motivation or basis to combine the Haile et al. and Kelman et al. references in the manner suggested by the Examiner. This is true whether these references are considered alone or in further combination with the Djikima et al. and Patrick references. Accordingly, the rejections of claims 4 and 8 is improper and should be withdrawn.

CONCLUSION

In summary, all the pending claims patentably distinguish over the prior art and should be formally allowed. Upon careful review and reconsideration it is believed the Examiner will agree with this proposition. Accordingly, the early issuance of a formal Notice of Allowance is earnestly solicited.

Any fees required in connection with this Amendment may be debited to Deposit Account 50-0568.

Respectfully submitted,

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APPENDIX

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 4,840,832
DATED : June 20, 1989
INVENTOR(S) : Paul L. Weinle, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 3, line 55, "an" should be -- any --.

Column 8, line 31, after the word "panel" insert -- a --.

Column 8, line 43, "said" should be -- same --.

Column 8, line 53, "reaatively" should be -- relatively --.

Column 8, line 56, after "forming" insert -- a --.

Signed and Sealed this
Thirteenth Day of March, 1990

Attest:

JEFFREY M. SAMUELS

Attesting Officer

Acting Commissioner of Patents and Trademarks